

ARTIO JoomSEF Documentation

User Manual

version 3.2.9

JoomSEF 2.x compatible with Joomla 1.0.x in native mode

JoomSEF 3.x compatible with Joomla 1.5.x in native mode

by [ARTIO s.r.o.](#)

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1. Introduction

ARTIO JoomSEF is a Joomla! component that generates and allows creation of Search Engine Friendly (SEF) URLs for Apache and IIS, returns proper 404 status code for missing content, provides logging of 404 errors, and creation of special "shortcut" URLs that allow the user to redirection to the new URL.

Starting with version 1.3.0 JoomSEF also allows control of specific meta tags, such as description or keywords for each generated URL. JoomSEF comes with SEF support for most popular Joomla! components. Some of those are delivered free as part of the JoomSEF installation package and some are also available under commercial licence. If you are missing a support for your favourite component, ARTIO may develop it on request.

This documents describes how to install and setup ARTIO JoomSEF Joomla! component. You can view this documentation again by selecting the "ARTIO JoomSEF Documentation" button from the ARTIO JoomSEF Control Panel.

2. Licence

This software is distributed under following [licensing conditions](#). By installing and using this software, you agree to bind to the licence conditions. Author reserves right to change these conditions at any time without prior notice.

3. Installing and Configuring

You can view installation instructions below by clicking the appropriate arrow.

If your .htaccess file was set as writable the install may have updated it already and you shouldn't have to worry about it.

If your site is in a subdirectory be sure to change the RewriteBase line accordingly. ex/
RewriteBase /joomla

I. Installation

1. Upload the zip file to Joomla! using the component installer in the usual way.
2. If not processed automatically by installer (e.g. due to write restriction to file), adjust your .htaccess file. Please note, that some directives may not be supported with specific web server or dependant on its configuration. See the comments in file for details.

Unsupported directives in .htaccess file are most common cause for seeing "500 Internal Server Error" message after JoomlaSEF installation.

3. For apache, set your ".htaccess" file like this (this is file for Joomla 1.5.x):

```
##
# @version $Id: htaccess.txt 9975 2008-01-30 17:02:11Z ircmaxell $
# @package Joomla
# @copyright Copyright (C) 2005 - 2008 Open Source Matters. All rights reserved.
# @license http://www.gnu.org/copyleft/gpl.html GNU/GPL
# Joomla! is Free Software
##

#####
# READ THIS COMPLETELY IF YOU CHOOSE TO USE THIS FILE
#
# The line just below this section: 'Options +FollowSymLinks' may cause problems
# with some server configurations. It is required for use of mod_rewrite, but may
# be set by your server administrator in a way that disallows changing it in
# your .htaccess file. If using it causes your server to error out, comment it out
# beginning of line), reload your site in your browser and test your sef url's. If
# it has been set by your server administrator and you do not need it set here.
#
#####

## Can be commented out if causes errors, see notes above.
# Options +FollowSymLinks

#
# mod_rewrite in use

RewriteEngine On

# Uncomment following line if your webserver's URL
# is not directly related to physical file paths.
# Update Your Joomla! Directory (just / for root)

# RewriteBase /

##### Begin - Joomla! core SEF Section
#
RewriteCond %{REQUEST_FILENAME} !-f
RewriteCond %{REQUEST_FILENAME} !-d
RewriteCond %{REQUEST_URI} !^/index.php
RewriteCond %{REQUEST_URI} (/|\.php|\.html|\.htm|\.feed|\.pdf|\.raw|/[\^.]*)$ [NC]
RewriteRule (.*?) index.php
RewriteRule .* - [E=HTTP_AUTHORIZATION:%{HTTP:Authorization},L]
#
##### End - Joomla! core SEF Section

##### Begin - Rewrite rules to block out some common exploits
```

```

## If you experience problems on your site block out the operations listed below
## This attempts to block the most common type of exploit `attempts` to Joomla!
#
# Block out any script trying to set a mosConfig value through the URL
RewriteCond %{QUERY_STRING} mosConfig_[a-zA-Z_]{1,21}(=|\%3D) [OR]
# Block out any script trying to base64_encode crap to send via URL
RewriteCond %{QUERY_STRING} base64_encode.*\(.*\) [OR]
# Block out any script that includes a <script> tag in URL
RewriteCond %{QUERY_STRING} (\<|\%3C).*script.*(\>|\%3E) [NC,OR]
# Block out any script trying to set a PHP GLOBALS variable via URL
RewriteCond %{QUERY_STRING} GLOBALS(=|\\[|\\%[0-9A-Z]{0,2}) [OR]
# Block out any script trying to modify a _REQUEST variable via URL
RewriteCond %{QUERY_STRING} _REQUEST(=|\\[|\\%[0-9A-Z]{0,2})
# Send all blocked request to homepage with 403 Forbidden error!
RewriteRule ^(.*)$ index.php [F,L]
#
##### End - Rewrite rules to block out some common exploits

```

For older Joomla versions (1.0.x) see the original file in the website root (htaccess.txt), rename it to .htaccess and follow the comments within. Htaccess file for Joomla 1.0.x contains 2 rewrite rules sections. With JoomSEF installation, the latter must be uncommented (by default, it is commented out).

4. For IIS, see Configuring IIS.
5. Ensure that SEF is enabled under Global Configuration in the Joomla! backend.
6. Edit the JoomSEF configuration, Change Enable to yes and save. This is necessary to ensure the default 404 document gets saved to the Joomla! database.

II. Configuring IIS

Since JoomSEF 1.3.2, support for IIS servers has been retested and updated.

JoomSEF has been successfully tested on IIS5, IIS6 and IIS7. As the installation process may be rather complex, we provide just the basic steps and hints here. If you have problems setting this up, please contact our support team (please note that the support is a paid service).

1. Configure PHP as ISAPI filter

In your IIS website configuration, configure PHP to run as ISAPI filter. (recommended)

2. Install ISAPI Rewrite Filter

To make JoomSEF work on your IIS, you will further need a rewrite component similar to mod_rewrite to Apache. There is several of them

available, both free or commercial. Staying with free solutions, it works e.g. with ISAPI_Rewrite Lite. From the others IISRewrite or SAPI_Rewrite Full should be ok. We have also tested it with IIRF (Ionic's ISAPI Rewrite Filter) but this one was a bit buggy, although closes to the original Apache's mod_rewrite (hopefully author can fix it soon).

Download the choosen component and follow its documentation to install it .

3. Create rewrite rules definition file

Create an .ini with rewrite rules for the rewrite components. The name of file and location may differ based on selected rewrite module. For ISAPI_Rewrite the file name is httpd.ini and should be store in the modules install directory. For details for your module check its documentation.

The file analogy of the Apache's .htaccess. The rules needed may differ on component choosen, your server configuration and your usage needs. If you are unsure about configuring this (or also any of the previous steps), you may contact our support.

In general you may copy the rules from the htaccess.txt file disctributed with Joomla! and adjust them to match the rewrite component possibilities. Please note that every module has a sligtly different set of rules that it supports. (e.g. ISAPI_Rewrite does NOT support %{REQUEST_FILENAME} !-f) and exisitng files need to be checked by other rule. E.g. for every RewritingRule, add [L,U] modifier.

If your Joomla! installation is not located in the website root, you will need to add the relative path to all the RewriteRules. (to simulate Apache's RewriteBase setting). If your Joomla! is located directly in the web site root, just add "/" before the index.php in the 2nd part of the RewriteRules.

Specific configuration may differ with different IIS Rewrite modules used and its versions (Helicon Isapi Rewrite 2 or 3) and also with Joomla versions 1.0 or 1.5.

An example configuration for IIRF for the site located in subdirectory /joomla/demo would be following:

```
##### Begin - Joomla! core SEF Section
#
RewriteCond %{REQUEST_FILENAME} !-f
RewriteCond %{REQUEST_FILENAME} !-d
RewriteCond %{REQUEST_URI} !^/index.php
RewriteCond %{REQUEST_URI} (/|\.php|\.html|\.htm|\.feed|\.pdf|\.raw|/[\^.]*)$ [NC]
RewriteRule /joomla/demo/(.*) /joomla/demo/index.php
RewriteRule .* - [E=HTTP_AUTHORIZATION:%{HTTP:Authorization},L]
```

```
#
##### End - Joomla! core SEF Section

##### Begin - Rewrite rules to block out some common exploits
## If you experience problems on your site block out the operations listed below
## This attempts to block the most common type of exploit `attempts` to Joomla!
#
# Block out any script trying to set a mosConfig value through the URL
RewriteCond %{QUERY_STRING} mosConfig_[a-zA-Z_]{1,21}(=|\%3D) [OR]
# Block out any script trying to base64_encode crap to send via URL
RewriteCond %{QUERY_STRING} base64_encode.*\(.*\) [OR]
# Block out any script that includes a <script> tag in URL
RewriteCond %{QUERY_STRING} (\<|\%3C).*script.*(\>|\%3E) [NC,OR]
# Block out any script trying to set a PHP GLOBALS variable via URL
RewriteCond %{QUERY_STRING} GLOBALS(=|\\[|\\%[0-9A-Z]{0,2}) [OR]
# Block out any script trying to modify a _REQUEST variable via URL
RewriteCond %{QUERY_STRING} _REQUEST(=|\\[|\\%[0-9A-Z]{0,2})
# Send all blocked request to homepage with 403 Forbidden error!
RewriteRule ^(.*)$ index.php [F,L]
#
##### End - Rewrite rules to block out some common exploits
```

4. Configure the Custom Errors (optional)

NOTE: in the example below, Joomla! is installed in the virtual directory Joomla!

Using the Internet Services Manager, right-click the directory in which Joomla! is installed. Select properties >> Custom Error set the 404 to URL:/joomla/index.php set the 405 to URL:/joomla/index.php

III. Uninstall

1. Uninstall the component using the component uninstaller in the usual way.
2. There's no need to alter the .htaccess file in any way.

IV. Upgrading from free to paid version

If you have purchased a paid version of JoomSEF and you want to replace the free one without losing the current configuration and already stored SEF URLs, please follow this procedure:

1. from JoomSEF control panel, choose "Upgrade"
2. from upgrade page, choose "Install from page"
3. choose the installation file you have download from ARTIO website
4. click the upgrade button

V. Configuration Checklist

Make sure that:

1. the .htaccess exists in the root of your Joomla! site
2. the "RewriteBase" rule matches YOUR Joomla! installation
3. Joomla! SEF is "ON" in site "Global configuration"
4. JoomSEF is "ON" in site "JoomSEF configuration"

VI. Non-latin languages

If your web site uses non-latin languages (such as greek, hebrew, etc.), make sure to configure the character conversion map correctly in JoomSEF Configuration / Non-ascii character replacements for all characters your language is using.

The format you need to use is oldChar1|newChar1,oldChar2|newChar2,...
Example: α|a,β|b,γ|c,...

VII. Automatic Updates

Starting with version 1.3.0, JoomSEF provides automatic updates capabilities.

Thanks to this feature, it is no longer needed to uninstall and install the component each time you want to upgrade to higher version. After activating the automatic upgrade tool in the JoomSEF control panel, the component will check, whether newer version is available on-line and if yes, it will automatically download it and install rewriting your current version.

4. Useful Usage Tips

Configuration

Using the ARTIO JoomSEF configuration is fairly straight forward. For more information on each item hover your mouse over the blue (i) images when you are in the configuration screen.

When you save the configuration it will remove all your URL's from the database. If you have a high traffic site it may be wise to put it offline before saving the ARTIO JoomSEF config or purging the database and go and browse your site starting at the main page. This will create the URL's properly for you and prevent numbers from being added to the ends of URL's people were browsing that changed.

You may want to purge the 404 log before creating fresh urls.

Optimization

To achieve maximum performance, you should consider several things.

Always have the latest JoomSEF version installed as we continue optimizations with every release.

Enable Joomla! caching.

Use JoomSEF Configuration to turn SEF off for those components you do not need it or which generate too many unoptimized links. Typically when you note links like 45.html, 46.html, ..., something is probably wrong.

If certain component is using pagination, sorting and similar parameters an advanced configuration option *"Append non-SEF variables to URL"* may significantly reduce a number of SEF links generated and thus also your DB load. However, please note that the excluded variables will be reappended to your URL in standard form as &name=value.

JoomSEF will always be a DB-driven SEO component. It will produce very nice and highly editable URLs for you, but for the cost of higher load for your DB. When configured properly and cached, the load increase should not be significant, but especially with big and frequently visited sites, pay a special attention to configuration and installed modules and plan your SEO carefully.

Preventing Duplicates

If you are facing duplicate content items links e.g. <http://yoursite.you/article.html>, <http://yoursite.you/article-2.html>, etc. that lead to the same content, this is most probably caused by so called "Itemid" variable (although there may be other reasons also).

The Itemid is internal Joomla! variable used to identify the source of a URL link. E.g. main menu or sub menu item that your visitor used to get to a certain content. According to this variable, different Joomla! configurations are applied - e.g. what template will be used or what modules will be visible, etc.

Since JoomSEF 1.4.0, several new configuration options are provided in "Advanced configuration" section. The option *"Exclude source info"* may be used to exclude the Itemid variable from the URL and thus eliminate the duplicates caused by it. However, ignoring it completely may lead to unwanted Joomla! functionality, like not switching the templates as desired or so. Whether this will be a problem for you or not depends mainly on the way how your site is designed and how complicated it is. If you need to fix this, the Itemid should be "reappended" to the SEF URL as an extra part using the option *"Reappend source"*. Then the resulting URL will look <http://yoursite.you/article.html&Itemid=xy>.

Since JoomSEF 2.0.0 there is a possibility to set your own Itemid for each extension that will always be used with it - thus even when *"Reappend source"* is set to Yes, that extension won't have the ?Itemid=xy appended. You can find this option in extension parameters. If you leave the *"Override Itemid"* field blank, the default Itemid will be used, but won't be appended as ?Itemid=xy in URL. Thus you can achieve that the ?Itemid=xy will be added only to those extensions that need it (mostly content). But be careful, setting Itemid to some random number can ruin your menu functionality!

Another new option is *"Ignore multiple sources"*. If selected, only one URL will be created for each page using the first Itemid. Every other link varying in Itemid only will be ignored and the already created one will be used instead. But again - this can ruin your menu functionality! This option has no effect on extensions with custom Itemid set.

Wrapper Configuration

In order to Wrappers to work properly, you need to set the Wrapper extension parameters as follows:

Ignore multiple sources: No
Itemid handling: Override
Override Itemid: (leave empty)

Cache

JoomSEF 2.0.0 introduces own cache functionality to decrease the amount of queries to your database. You can find this option in Advanced Configuration section.

When caching is enabled, the most often used links will be kept in memory and will not require querying database every time. You can set the cache size (how many links can be stored in memory) and minimum hit count - only links with hit count greater than specified value will be stored in cache. Be careful about the cache size option - the more links in cache means less queries to database, but on the other hand bigger memory consumption.

Patch System

JoomSEF 2.0.0 also comes with the new Patch System. This will also decrease amount of queries made to database because everyone can use only those patches he needs, so no more "SELECT DATABASE()" queries if you use only one database.

A patch is basically a plugin specifically designed to work with JoomSEF only. This means that you can use default Joomla! Plugin installer to manage these patches. Also every patch you install must be published in Site Plugins section in order to work.

JoomFish Support

There are several ways you can let JoomSEF build URLs on your multi-lingual site. They are displayed in JoomFish Related Configuration section of JoomSEF configuraton when JoomFish is installed.

Language integration

- Include in path - with this option selected your URLs will look like

- `www.mysite.com/en/somepage.html`
- Add as suffix - this option will make your URLs look like `www.mysite.com/somepage_en.html`
- Do not add - doesn't add any language code to URLs. Should be used only when "*Translate URLs*" option is active or it will create duplicate links.

Always use language

With this option active the language code will always be added to resulting URL. This may decrease duplicate links count as there won't be two links (with and without language code) pointing to the same page.

Translate URLs

Activate to have your URLs translated using JoomFish - this will improve the readability of your URLs for people preferring other languages.

Component Configuration

In the Component Configuration section of JoomSEF configuration you can set some options for each component individually.

Handling

Controls the way how links are processed.

- Use default handler - JoomSEF will try to create the best looking URL it can using all available resources.
- Nocache - JoomSEF will create URLs the same way as default Joomla! SEF does - they won't be stored in database and will look like `www.mysite.com/component/option,com_virtuemart/Itemid,50/`
- Skip - JoomSEF won't process URLs at all and they will look as with the SEF disabled entirely.

Custom title

Lets you set your own extension title to use in URL instead of default menu title. Leave blank for default one. If you use JoomFish you can also translate these custom titles.

Modifying URLs

You can modify URL's to your liking. Go into the ARTIO JoomSEF Control Panel and click 'View/Edit SEF Urls'. Select the URL you wish to modify. If you click the check box labeled 'Save as Custom Redirect' it will place this URL into the 'Custom Redirect' area which you can navigate to from the ARTIO JoomSEF Control Panel. When you click 'View/Edit Custom Redirects' you will see your URL in here now instead. These urls will not be removed when you save the config. You can modify these and save them as you wish.

This is particularly useful if you are updating from an old site because any URL's that are no longer available will be logged. You can view these URL's by clicking 'View/Edit 404 Logs' in the ARTIO JoomSEF Control Panel. You can redirect visitors to the new page by selecting the URL you wish to modify and entering the new url. Note: The ability to enter non-Joomla! URL's into this area is coming soon! This will allow you to easily transfer a non-Joomla! site to Joomla using ARTIO JoomSEF and any of your old URL's will be redirected to the new page within Joomla!.

Metadata organization - JoomSEF Metabot

To organize and adjust your site metadata (such as title, meta desc, meta keywords, etc.] from one place, you may use features offered by JoomSEF Metabot. Metabot is installed as a standard Joomla! mambot and takes care about composition of your page title and meta data in the page head section.

Metabot will load the metadata you have defined for a certain SEF URL using the JoomSEF URL editor and will place them into the head section of your current Joomla! page.

Hint: To define title and/or meta tags for your homepage (that has not really an URL generated by SEF, but composes just from your site base URL), create a new entry in the URL list where the SEF URL will stay blank and the original URL will say just index.php.

For metabot, to work correctly, it must be used always with JoomSEF component and it has to be in published state.

Backing up your custom URLs

It is recommended to backup your database before doing this.

You can also import and export URL's from the Custom Redirect area. To do this click the 'Import/Export Custom URLs' link above the table of URL's. To backup your URL's click the 'Backup Custom URLs' button and you will be presented with a file named 'ARTIO JoomSEF_custom_urls.sql' to download.

If you want to import your urls browse to the file and click the 'Import Custom URLs' button.

5. Supported Joomla! Components

Joomla! Built-in Components

The support for Joomla! core components, such as banners, content, contacts, news, newsfeeds, weblinks, etc. is already integrated in the JoomSEF component. Optimization of URLs for these components requires no further efforts.

3rd Party Components

The situation is slightly different for 3rd party components. There exists many 3rd party components and modules for Joomla!, which usually differ significantly in complexity and structure. This means that for some of those (usually the simple ones), the SEO will work, but for others, there will be insufficient SEO, or generation of duplicate URLs. These can be either skipped in JoomSEF Control Panel, so no SEF URLs will be generated for them, or will require a special "extensions" using the default JoomSEF component handler. The others (usually more complex ones) may cause problems when used with the default handler. Such problems may include errors, loss of function

Extensions are special pieces of code for JoomSEF, written with particular 3rd party component in mind (e.g. VirtueMart, JoomlaBoard, ...). Such extension can be either part of the component/module itself (provided by component/module author), may come as part of JoomSEF installation package or be provided by 3rd parties. ARTIO offers most of such extensions available for free as part of the JoomSEF distribution package. However, some of the extensions are provided also under commercial licence. Below, you may find list of official extensions available for JoomSEF.

List of Official Extensions Available

- AdsManager (paid)
- AlphaContent (free)
- Community Builder (paid)
- Contacts XTD (free)
- Datso Gallery (free)
- Deep Pockets II (free)
- DocMan (free)
- EZ Realty (paid)
- FireBoard Forum (free)
- Glossary (free)
- iJoomla Magazine (paid)
- JEvents - Events Calendar (free)
- JoomlaBoard (free)
- JoomSuite Resource (paid)
- Jomres (paid)
- Kunena Forum (free)
- Marketplace (paid)
- Mister Estate
- Mosets Hot-Property (paid)
- Mosets Tree (free)
- Seyret Video (free)
- SMF Bridge (Simple Machines Forum) (paid)
- ReMOSitory (free)
- RSGallery2 (free)
- SOBI2 (paid)

- VirtueMart (paid)
- Zoom Galery (free)

Please note this list may not be complete and most actual. Also, some versions may be compatible only with JoomSEF v. 2 or 3. Please, check the JoomSEF website to get the list of the [latest JoomSEF extensions available](#). We hope this list will spread fast.

Our priority is to add support for the most popular extensions first. If you haven't found your favourite component/module here and it does not work with JoomSEF correctly, you may contact us and we may develop a needed extension for you.

Extension Installation

To install extra SEF extension for a component, use installer accessible from the JoomSEF Control Panel.

1. Click "Install" tool in the toolbar
2. Use "Upload file" box to select an extension installation file and press "Upload and Install" button
3. If everything went ok, you should get an confirmation screen with installation status; after clicking "Continue..." link, your new SEF extension is ready to use

Extension Parameters

Since JoomSEF 2.0.0 each extension can have its own parameters affecting resulting URLs - you can access them through main JoomSEF's administration page using the Edit button in the toolbar or simply clicking on extension's name.

6. Donate to JoomSEF

ARTIO JoomSEF is a free software. However the development costs are same as for any other software. If you are satisfied with this software and you would like us to implement new features, fix the bugs promptly and publish new releases regularly, you can send us a donation and thus support the JoomSEF further development.

You may do so via PayPal service using your credit card or transfer, or you can send us the payment directly.



Bank account information:

Receiving Bank: Ceskoslovenska obchodni banka (CSOB)
 Address: Hollarova 5, Ostrava, Czech Republic
 Account No.: 199371035, Bank code: 0300
 SWIFT: CEKOCZPP

IBAN: CZ1303000000000199371035

7. Support & Help

If you need more help with the ARTIO JoomSEF component, visit our webpages at <http://www.joomsef.net> and check the JoomSEF FAQs & support forums.

You can also apply for paid support in our e-shop.

8. Advertisement Notice

JoomSEF may add user-invisible links pointing to websites of JoomSEF authors (ARTIO s.r.o.) and/or to its sponsors. Such links appear in page footers or meta tag fields of pages, where it is used. This has no direct influence to functionality of your site.

Similarly to Joomla! software, these may be removed if you wish to do so. However, by keeping them, you help us develop the software further and increase the number of users.

You may also purchase a commercial version of JoomSEF that does not contain these advertisement links. This component is available from on-line store at <http://www.artio.net/en/e-shop>.

9. Changelog

For latest changelog, please, visit [on-line JoomSEF Changelog](#).

10. Credits

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